

### **DETAILED ACTION**

1. This is the Final Office Action from the examiner in charge of this application in response to applicant's amendment dated 7/27/2009.

#### ***Claim Objections***

2. Claims 30-33 are objected to because of the following informalities: claim 30, (a) line 3, "he" should be "the", (b) lines 10-12, "so as to cover the hole in the reinforcing plate and the opening in the outer wall so as to cover the hole in the reinforcing plate and the opening in the outer wall" is improper. Appropriate correction is required.

#### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations in claim 35 of the mechanical connection comprising "a fastener", and claim 36 of the fastener being "a rivet" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 2,845,320 to Saunders et al in view of USP 6,036,293 to Anell, USP 6,471,313 to Ueda et al and USP 4,102,721 to Carey, Jr.

Saunders discloses a refrigerating appliance, Such as shown in Fig 1, comprising all the elements recited in the above listed claims including a housing having a foam-filled hollow body comprising an inner wall, an outer wall spaced from the inner wall, the outer wall having an opening therethrough, a reinforcing plate 21 (such as shown in

Figs 4-5) positioned on an inner side of the outer wall and coupled to the outer wall by a mechanical connection/rivet fastener 37, the reinforcing plate 21 having a hole therethrough, the hole in the reinforcing plate 21 being aligned with the opening in the outer wall, foam insulation located between the inner wall and the outer wall, a hinge plate 36 attached to the outer wall by a fastener 37 that passes through the opening in the outer wall and that is coupled to the hole in the reinforcing plate by threaded screws. The differences being that Saunders fails to disclose the reinforcing plate coupled to the outer wall by a clinch connection (instead of a rivet fastener), a destructible layer positioned between the reinforcing plate 21 and the outer wall so as to cover the hole in the reinforcing plate and the opening in the outer wall, the destructible layer being formed of the substantially incompressible material, the clinch connection causing a portion of the destructible layer located at the clinch connection to be broken off and driven into a recess in the reinforcing plate, wherein the fastener coupling the hinge plate to the outer wall pierces the destructible layer.

Anell teaches the idea of securing a reinforcing part 7 to the wall of the refrigerator housing by a clinch connection (col. 5, lines 2-6) in order to securely hold the reinforcing part 7 to the refrigerator housing wall. Ueda et al teaches the idea of providing a refrigerator housing wall (such as shown in Fig 20) with a destructible layer 51 disposed between and directly in contact with a wall and a reinforcing plate 14 of a refrigerator housing in order to prevent foam heat-insulating material from escaping through openings in the housing and reinforcing plate during filling of the foam heat-insulating material into the housing wall. Carey, Jr. also teaches the idea of providing,

such as shown in Figs 2-3, an opening 22 in the housing of a refrigerator with a destructible layer 10 in order to prevent foam heat-insulating material from escaping through openings in the housing during filling of the foam heat-insulating material into the housing wall; wherein the destructible layer is formed of a substantially incompressible material.

Therefore, it would have been obvious to modify the structure of Saunders by having the reinforcing plate coupled to the outer wall by a clinch connection in order to securely hold the reinforcing plate 21 to the refrigerator housing wall, as taught by Anell, by providing a destructible layer positioned between the reinforcing plate 21 and the outer wall so as to cover the hole in the reinforcing plate and the opening in the outer wall in order to prevent foam heat-insulating material from escaping through openings in the housing and reinforcing plate during filling of the foam heat-insulating material into the housing wall, as taught by Ueda and Carey, with the destructible layer being formed of a substantially incompressible material, as taught by Carey, Jr., since the references teach alternate conventional refrigerator housing structure, used for the same intended purpose, thereby providing structure as claimed. Further, it is inherent that the clinch connection of Saunders, as modified as taught by Anell, would cause a portion of the destructible layer located at the clinch connection to be broken off and driven into a recess in the reinforcing plate, and the fastener coupling the hinge plate to the outer wall would pierce the destructible layer.

7. Claims 34-36, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 2,845,320 to Saunders et al in view of USP 6,471,313 to Ueda et al and USP 4,102,721 to Carey, Jr.

Saunders discloses a refrigerating appliance, such as shown in Fig 1, comprising all the elements recited in the above listed claims including a housing having a foam-filled hollow body comprising an inner wall, an outer wall spaced from the inner wall, the outer wall having an opening therethrough, a reinforcing plate 21 (such as shown in Figs 4-5) positioned on an inner side of the outer wall and coupled to the outer wall by a mechanical connection/rivet fastener 37, the reinforcing plate 21 having a hole therethrough, the hole in the reinforcing plate 21 being aligned with the opening in the outer wall, foam insulation located between the inner wall and the outer wall, a hinge plate 36 attached to the outer wall by a fastener 37 that passes through the opening in the outer wall and that is coupled to the hole in the reinforcing plate by threaded screws. The differences being that Saunders fails to disclose a destructible layer positioned between the reinforcing plate 21 and the outer wall so as to cover the hole in the reinforcing plate and the opening in the outer wall, the destructible layer being formed of a substantially inelastic material, the clinch connection causing a portion of the destructible layer located at the clinch connection to be broken off and driven into a recess in the reinforcing plate, wherein the fastener coupling the hinge plate to the outer wall pierces the destructible layer.

Ueda et al teaches the idea of providing a refrigerator housing wall, such as shown in Fig 20, with a destructible layer 51 disposed between and directly in contact

with a wall and a reinforcing plate 14 of a refrigerator housing in order to prevent foam heat-insulating material from escaping through openings in the housing and reinforcing plate during filling of the foam heat-insulating material into the housing wall. Carey, Jr. also teaches the idea of providing, such as shown in Figs 2-3, an opening 22 in the housing of a refrigerator with a destructible layer 10 in order to prevent foam heat-insulating material from escaping through openings in the housing during filling of the foam heat-insulating material into the housing wall; wherein the destructible layer is formed of a substantially inelastic material.

Therefore, it would have been obvious to modify the structure of Saunders by providing a destructible layer positioned between the reinforcing plate 21 and the outer wall so as to cover the hole in the reinforcing plate and the opening in the outer wall in order to prevent foam heat-insulating material from escaping through openings in the housing and reinforcing part during filling of the foam heat-insulating material into the housing wall, as taught by Ueda and Carey, with the destructible layer being formed of a substantially inelastic material, as taught by Carey, Jr., since the references teach alternate conventional refrigerator housing structure, used for the same intended purpose, thereby providing structure as claimed.

8. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders, as modified, as applied to claim 34 above, and further in view of USP 6,036,293 to Anell.

Saunders, as modified, discloses all the elements as discussed above except for the reinforcing plate coupled to the outer wall by a clinch connection (instead of a rivet

fastener), the clinch connection causing a portion of the destructible layer located at the clinch connection to be broken off and driven into a recess in the reinforcing plate, wherein the fastener coupling the hinge plate to the outer wall pierces the destructible layer.

However, Anell teaches the idea of securing a reinforcing part 7 to the wall of the refrigerator housing by a clinch connection (col. 5, lines 2-6) in order to securely hold the reinforcing part 7 to the refrigerator housing wall. Therefore, it would have been obvious to modify the structure of Saunders, as modified, by having the reinforcing plate coupled to the outer wall by a clinch connection in order to securely hold the reinforcing plate 21 to the refrigerator housing wall, as taught by Anell, since both teach alternate conventional refrigerator housing structure, used for the same intended purpose, thereby providing structure as claimed. Further, it is inherent that the clinch connection of Saunders, as modified, would cause a portion of the destructible layer located at the clinch connection to be broken off and driven into a recess in the reinforcing plate, and the fastener coupling the hinge plate to the outer wall would pierce the destructible layer.

#### ***Response to Arguments***

9. Applicant's arguments on page 5-6 of the above-noted amendment have overcome formal matters rejections in paragraphs # 2-7 of the Office action mailed on 5/12/2009.
10. Applicant's arguments filed 7/27/2009 regarding the prior art rejections have been fully considered but they are not persuasive. In response to applicant's argument

on page 7 that the layer 51 of Ueda is not substantially incompressible/inelastic, but rather is highly elastic, the examiner respectfully takes the position that Ueda is used, in part, for the teaching that it is well known in the art to provide a refrigerator housing wall with a barrier layer therein in order to prevent foam heat-insulating material from escaping through openings in the housing during filling of foam heat-insulating material into the housing wall, and it is clear that the layer 51 of Ueda is elastic.

11. In response to applicant's arguments on page 8 that the Carey tape is somewhat elastic and "will deform somewhat", the examiner respectfully takes the position that the claimed limitation of "substantially inelastic material" fails to distinguish from the Carey tape. Further, it is well known in the refrigerator art that the barrier layer being formed of a substantially incompressible/inelastic material, such as paper (USP 3883198 and 3940195 to Tillman), or a foil (USP 5335988 to Lynn et al).

12. In response to applicant's argument on page 9 that the Office action fails to identify any motivation for making such a substitution, the examiner respectfully takes the position that the motivation for modifying Saunders to include a barrier layer stems from the teachings of Ueda and Carey in order to prevent foam heat-insulating material from escaping through openings in the housing during filling of foam heat-insulating material into the housing wall.

13. In response to applicant's argument on page 10 that the prior art fails to teach the limitations in claims 31 and 37 of "a portion of the destructible layer at the clinch connection is broken off and driven into a recess in the reinforcing plate", the examiner respectfully takes the position that although the prior art fails to specifically state such



limitations, once Saunders is modified to have a substantially incompressible/inelastic layer provided between the outer wall and the reinforcing plate, with the reinforcing plate coupled to the outer wall by a clinch connection, it is inherent that a portion of said incompressible/inelastic material at the clinch connection would be broken off and driven into a recess in the reinforcing plate, as stated in the above art rejections.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tillman '198 shows structures similar to various elements of applicant's disclosure.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HANH V. TRAN whose telephone number is (571)272-6868. The examiner can normally be reached on Monday-Thursday, and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J Allen Shriver can be reached on (571) 272-6698. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HVT  
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/Hanh V. Tran/  
Primary Examiner, Art Unit 3637